



Animal and Plant Health Inspection Service
Pest Management - Plant Health Programs – Program Update

Program: *Phytophthora ramorum*

Date: December 2012

APHIS *Phytophthora ramorum* Program 2012, 4th Quarter Summary

Background and History:

The APHIS-PPQ *P. ramorum* regulatory program initiated with the First Interim Rule February 14, 2002, is now in its 11th year. Currently 14 counties in California and 202 square miles in Curry County, in Oregon are designated as quarantine areas for *P. ramorum* regulated articles. The remaining counties in California and Oregon, and the entire state of Washington are designated as regulated areas for inter-state shipment of nursery stock. **Presence of *P. ramorum* in the environment has not caused disease outbreaks in the forest landscape outside the currently quarantined counties in CA and OR.** The USDA *P. ramorum* quarantine program, in place since 2002, has been successful in limiting the pathogen's artificial spread into the environment beyond the currently quarantine areas. The *P. ramorum* program in consultation with stakeholders has funded and developed several survey and remediation protocols, outreach and training initiatives. These efforts have benefitted the nursery industry by assuring the commercial movement of disease-free plants. Between, January 1st to December 31st, 2012 *P. ramorum* has been reported in 8 (CA, OR, WA, NC, ME, NY, PA. and IN) states of which, two detections in the non-regulated states of ME and PA were traced back to a shipper in OR. *P. ramorum* was detected in 33 nurseries in total, in 17 inter-state shipping and 16 non-interstate shipping nurseries. Only 10 of the 17 interstate shippers actually shipped interstate. In total 10 trace investigations were undertaken. Host Plants from *P. ramorum* positive nurseries were shipped to 33 states, however, positive plants due to trace investigations were detected in only 2 non-interstate shipping nurseries (ME, PA) and four residential (ME, CA, OR, WA) locations. Details are provided in this report.

Program Updates:

Regulatory:

Advance Notification Federal Order Revised

On December 10th, Animal and Plant Health Inspection Service (APHIS) amended the two previous Federal Orders (FO), dated January 28, 2011 (DA-2011-04) and February 25, 2011 (DA-2011-10) requiring advance notification for certain shipments of *P. ramorum* high-risk host nursery stock. The amended FO superseded all previous FOs on *P. ramorum* notification and removed notification requirements for nurseries in counties within regulated areas that have never tested positive for *P. ramorum* or have tested negative for the past three years.

Effective immediately, interstate shipments of *Camellia*, *Kalmia*, *Pieris*, *Rhododendron* (including Azalea), and *Viburnum* nursery stock (defined in the regulations as high-risk) from all quarantine areas must continue to provide written notification to non-regulated states. The nurseries located in the quarantined counties of California and Oregon affected by this requirement were; in California: Alameda, Contra Costa, Humboldt, Lake, Marin, Mendocino, Monterey, Napa, San Francisco, San Mateo, Santa Clara, Santa Cruz, Solano,

and Sonoma counties; in Oregon: Curry County. However, only previously (since 2010) or newly positive nurseries in the regulated areas of California, Oregon, and Washington shipping any species of *Camellia*, *Kalmia*, *Pieris*, *Rhododendron* (including Azalea), and *Viburnum* to non-regulated states will be required to notify. Rather than requiring notifications for all nurseries located in a regulated county, the amended Federal Order focuses on specific nurseries within regulated counties that are currently positive for *P. ramorum* or have tested positive for *P. ramorum* over the last 3 years (since 2010). In addition, if *P. ramorum* is detected in the future for example, during nursery certification surveys or surveys resulting from trace investigations, these nurseries will also be required to provide notifications. Therefore, nurseries located in a regulated county that have never detected *P. ramorum* on their premises or have tested negative for *P. ramorum* for the last consecutive 3 years are no longer required to provide notification. APHIS and the State Regulatory Agencies in the regulated states have jointly reviewed regulatory history of nurseries in the regulated areas to determine those affected by the revised FO. If it is determined that a nursery needs to comply based on *P. ramorum* detection, the nursery owner will be notified by their respective State Regulatory Agency. Affected nurseries must comply with this requirement while under the Confirmed Nursery Protocol, and for two years after their release. APHIS will provide trace information to non-regulated states.

Notification will serve as an additional source of information for states receiving high-risk *P. ramorum* host nursery stock, and at the same time minimize burden on the regulatory agencies and the nursery industry. Affected nurseries are required to maintain notification records for a period of 1 year from the notification date to assist with assessing compliance. This action was necessary based on the results of the advance notification review and information provided to APHIS by state regulatory authorities and the nursery industry. The review findings indicated that advance notification in its current form did not meet the stated goals of providing the states with sufficient information to allow them to prioritize resources and assure rapid response. These changes will enable APHIS and state regulatory agencies to focus resources on nurseries in high-risk quarantine areas and those where *P. ramorum* has been detected.

The Federal Order and a guidance document is available on the APHIS' website www.aphis.usda.gov/plant_health/plant_pest_info/pram/regulations.shtml

Nursery Detections to date (2000 – December 2012)

Year	# Nurseries	# States	Notes
2000, and prior	Zero		There were no reported nursery detections prior to 2001
2001	One	California	In infested area
2002	Zero		
2003	20	3	CA, OR, WA
2004	176	21	125 linked to one nursery's shipments
2005	99	7	
2006	62	11	
2007	23	6	
2008	28	8	
2009	26	11	Also, 6 landscape detections in 4 states; Data 2009 , Dec 31st

2010	34	13	33 nurseries, and 1 greenhouse, 2 landscape detections.
2011 Jan-Dec	23	5	23 nursery detections, 1 residential, 1 landscape
2012 Jan-Sept	33	8	33 Detections were in nurseries located in CA, OR, WA, NC, ME, NY, PA. IN and 3 Residential finds (ME, OR, CA)

Details of detections from January to December 31st, 2012:

Between, January 1st to December 31st, 2012 *P. ramorum* has been reported in 8 (CA, OR, WA, NC, ME, NY, PA. and IN) states of which, two detections in the non-regulated states of ME and PA were traced back to a shipper in OR. *P. ramorum* was detected in 33 nurseries in total, in 17 inter-state shipping and 16 non-interstate shipping nurseries. Only 9 of the 17 interstate shippers actually shipped interstate.

Of the 17 interstate shippers, 16 were located in the regulated states of CA (2), OR (7), WA (7), and one (1) in the non-regulated state of NY. The 16 non-interstate shippers were located in CA (4), OR (4), WA (3), NC (1), ME (1), NY (1), PA (1) and IN (1). Unusual for 2012 was that 48.5% (16) of the finds were first time detections, which were located in CA (3), OR (7), WA (2), NY (1), IN (1) ME (1), and PA (1) the other 51.5% (17) were repeat nurseries (refer to table below). Two detections in the non-regulated states of ME and PA were traced back to a shipper in OR.

In total 10 trace investigations were undertaken. Host Plants from *P. ramorum* positive nurseries were shipped to 33 states, however positive plants due to trace investigations were detected in only 2 (in ME, PA traced back to OR) non-interstate shipping nurseries and four (4) residential locations. Of the four (ME, OR, WA and CA) positive residential finds, two (in ME, and CA) were traced back to a nursery in OR and 2 residential finds in OR and WA was traced back to a WA nursery. Trace investigations resulted in *P. ramorum* positive plant detections in two (2 in Maine and 1 in Pennsylvania) non-regulated states.

State Regulated: R Non-regulated: NR	Total number of positive nurseries	Total number of Positive Interstate shippers	Total number of Interstate shippers Newly ¹ Positive	Total number of Positive Non- interstate shippers	Total number of Non- interstate shippers Newly ¹ Positive
California-R	6	2	1	4	2
Oregon-R	11	7	6	4	1
Washington-R	10	7	1	3	1
North Carolina	1	-	-	1	0
Maine	1	-	-	1*	1*
New York	2	1**	0	1**	1
Pennsylvania	1	-	-	1*	1*
Indiana	1	-	-	1**	1
Total	33	17	8	16	8

¹Detected for the first time in 2012 *Detections traced back to a regulated state;

**Detected as a result of *P. ramorum* National Surveys

Detections in plants, soil and/or water: January to September 30th 2012

High Risk Hosts 85%: (82): *Rhododendron* (51), *Camellia* (11); *Viburnum* (10); *Pieris* (7); *Kalmia* (3). **Other Hosts 15%:** (15): *Cornus* (1); *Gaultheria* (4); *Hamamelis* (2); *Loropetalum* (3); *Magnolia* (3); *Trachelospermum* (1); *Prunus* (1). *P. ramorum* was also detected in Potting Media (OR 3); Soil (Total 9; OR 4, CA 2, ME 2 and WA 1); Water (Total 8, WA 6 and NY 2), Cull Pile (OR 1).

APHIS-PPQ-CPHST provides assistance to retail nursery impacted by *P. ramorum* in Maine:

As a result of recent detection of *P. ramorum* on rhododendron plants (July and September, 2012) and in soil (November–December, 2012) at a retail site in Maine, APHIS-PPQ along with Maine Department of Agriculture organized a joint visit in December 2012 to the affected nursery. The objective of the assessment group was to present the State Department of Agriculture’s State Plant Regulatory Official (SPRO) and the United States Department of Agriculture Animal Plant Health Inspection Agency Plant Protection and Quarantine (USDA APHIS PPQ) State Plant Health Director (SPHD) with a set of recommendations for the nursery to potentially mitigate this *P. ramorum* introduction. Specifically, the group was asked to examine the site of the soil positives and to recommend remediation options for the site. After visiting the site and meeting with nursery personnel, the group provided several recommendations for mitigating the risk such as exclusion, cultural techniques, plant and water management, drainage, sanitation, record keeping and training. These are recommendations, not requirements or regulations, however incorporating as many of these recommendations as possible into the nursery operation should provide the greatest opportunity to mitigate this *P. ramorum* introduction.

Positive Detections vs. Plant Species Jan – September 30th, 2012

Plant Genus/Species/Variety	State	County	County Status	Date Confirmed
<i>Camellia japonica</i> 'Grand Prix'	OR	Marion	Regulated	4/13/2012
<i>Camellia japonica</i> 'Mathotiana'	CA	San Joaquin	Regulated	4/27/2012
<i>Camellia japonica</i> 'Bella Rossa'	CA	San Joaquin	Regulated	4/27/2012
<i>Camellia japonica</i> 'Mrs. Tingley'	OR	Lane	Regulated	5/31/2012
<i>Camellia japonica</i> 'Pink Parade'	CA	Sacramento	Regulated	6/15/2012
<i>Camellia sasanqua</i>	OR	Polk	Regulated	5/14/2012
<i>Camellia sasanqua</i>	NC	Mecklenburg	Non-Regulated	4/23/2012
<i>Camellia sasanqua</i> 'Mr. Otto'	WA	King	Regulated	6/20/2012
<i>Camellia sasanqua</i> 'Cleopatra'	CA	San Joaquin	Regulated	4/27/2012
<i>Camellia</i> sp.	OR	Polk	Regulated	5/1/2012
<i>Camellia</i> sp.	CA	Mendocino	Quarantine	6/4/2012
<i>Cornus kousa</i>	OR	Polk	Regulated	5/14/2012
Cull Pile material	OR	Polk	Regulated	6/18/2012
<i>Gaultheria procumbens</i>	WA	Lewis	Regulated	5/24/2012
<i>Gaultheria procumbens</i>	ME	Cumberland	Non-Regulated	7/20/2012
<i>Gaultheria procumbens</i>	OR	Lane	Regulated	7/24/2012
<i>Gaultheria shallon</i>	OR	Lane	Regulated	7/24/2012
<i>Hamamelis intermedia</i>	OR	Polk	Regulated	5/14/2012
<i>Hamamelis virginiana</i>	OR	Clackamas	Regulated	7/11/2012
<i>Kalmia latifolia</i>	OR	Polk	Regulated	5/1/2012
<i>Kalmia latifolia</i>	OR	Curry	Quarantine	6/1/2012
<i>Kalmia</i> sp.	NY	Suffolk	Non-Regulated	7/31/2012
<i>Loropetalum chinense</i>	CA	Orange	Regulated	4/13/2012
<i>Loropetalum chinense</i>	CA	Orange	Regulated	6/18/2012
<i>Loropetalum chinense</i> 'Rubrum'	CA	Sacramento	Regulated	5/3/2012
<i>Magnolia grandiflora</i>	OR	Polk	Regulated	5/14/2012
<i>Magnolia grandiflora</i> var. Dwf. Southern	WA	King	Regulated	5/24/2012
<i>Magnolia grandifolia</i>	OR	Marion	Regulated	6/7/2012
<i>Pieris japonica</i>	OR	Curry	Quarantine	6/1/2012
<i>Pieris japonica</i>	OR	Curry	Quarantine	6/7/2012
<i>Pieris</i> 'Mountain Fire'	WA	Pierce	Regulated	4/18/2012
<i>Pieris</i> sp.	NY	Suffolk	Non-Regulated	7/31/2012
<i>Pieris</i> sp.	OR	Washington	Regulated	4/13/2012
<i>Pieris</i> sp.	OR	Washington	Regulated	5/17/2012
<i>Pieris</i> sp.	WA	Pierce	Regulated	5/3/2012
Potting Media	OR	Polk	Regulated	6/18/2012
Potting Media	OR	Washington	Regulated	5/17/2012
Potting Media	OR	Curry	Quarantine	6/28/2012
<i>Prunus laurocerasus</i>	OR	Polk	Regulated	5/14/2012
<i>Rhododendron</i> 'Album'	NY	Suffolk	Non-Regulated	7/31/2012
<i>Rhododendron</i> 'Album'	ME	Lincoln	Non-Regulated	9/14/2012

Plant Genus/Species/Variety	State	County	County Status	Date Confirmed
<i>Rhododendron</i> 'Anna Rose Whitney'	WA	King	Regulated	6/20/2012
<i>Rhododendron</i> 'Baden Baden'	OR	Washington	Regulated	4/13/2012
<i>Rhododendron</i> 'Bessie Howell'	OR	Curry	Quarantine	6/1/2012
<i>Rhododendron</i> 'Betty Bob'	OR	Curry	Quarantine	6/13/2012
<i>Rhododendron</i> 'Black Sport'	OR	Curry	Quarantine	6/1/2012
<i>Rhododendron</i> 'Boule de Neige'	CA	Sacramento	Regulated	6/18/2012
<i>Rhododendron</i> 'Boursault'	ME	Lincoln	Non-Regulated	8/8/2012
<i>Rhododendron</i> 'Boursault'	ME	Lincoln	Non-Regulated	8/20/2012
<i>Rhododendron</i> 'Boursault' Purple	CA	Sacramento	Regulated	7/12/2012
<i>Rhododendron</i> 'Bruce Brechtbill'	WA	Pierce	Regulated	5/9/2012
<i>Rhododendron</i> 'Bruce Brechtbill'	WA	Pierce	Regulated	5/17/2012
<i>Rhododendron</i> 'Bruce Brechtbill'	WA	Thurston	Regulated	3/30/2012
<i>Rhododendron catawbiense</i> 'Alba'	NY	Suffolk	Non-Regulated	7/31/2012
<i>Rhododendron catawbiense</i> 'Alba'	NY	Suffolk	Non-Regulated	7/31/2012
<i>Rhododendron</i> 'Cunningham White'	NY	Suffolk	Non-Regulated	7/31/2012
<i>Rhododendron</i> 'Edith Bosley'	WA	King	Regulated	6/12/2012
<i>Rhododendron</i> 'Electra'	OR	Lincoln	Regulated	5/17/2012
<i>Rhododendron</i> 'Haaga'	PA	Northumberland	Non-Regulated	8/20/2012
<i>Rhododendron</i> 'Holden'	OR	Polk	Regulated	4/27/2012
<i>Rhododendron</i> 'Lord Roberts'	WA	King	Regulated	5/24/2012
<i>Rhododendron</i> 'Maximum Roseum'	OR	Curry	Quarantine	6/1/2012
<i>Rhododendron</i> 'Minnetonka'	CA	Sacramento	Regulated	7/12/2012
<i>Rhododendron</i> 'OSU'	OR	Lincoln	Regulated	5/17/2012
<i>Rhododendron</i> 'PJM'	WA	King	Regulated	8/23/2012
<i>Rhododendron</i> 'Purple Elegans'	NY	Suffolk	Non-Regulated	7/31/2012
<i>Rhododendron</i> 'Purple Passion'	WA	King	Regulated	5/24/2012
<i>Rhododendron</i> 'Purple Splendor'	WA	King	Regulated	6/14/2012
<i>Rhododendron</i> 'Roseum Elegans'	NY	Suffolk	Non-Regulated	7/31/2012
<i>Rhododendron</i> 'Roseum Pink'	ME	Lincoln	Non-Regulated	8/8/2012
<i>Rhododendron</i> 'Roseum Pink'	ME	Lincoln	Non-Regulated	8/20/2012
<i>Rhododendron</i> 'Scintillation'	WA	Clallam	Regulated	5/16/2012
<i>Rhododendron</i> 'Seta'	OR	Curry	Quarantine	6/13/2012
<i>Rhododendron</i> 'Snow Lady'	WA	Clark	Regulated	6/28/2012
<i>Rhododendron</i> sp.	OR	Washington	Regulated	5/17/2012
<i>Rhododendron</i> sp.	OR	Marion	Regulated	6/15/2012
<i>Rhododendron</i> sp.	OR	Marion	Regulated	6/29/2012
<i>Rhododendron</i> sp.	CA	Orange	Regulated	4/13/2012
<i>Rhododendron</i> sp.	CA	Orange	Regulated	6/18/2012
<i>Rhododendron</i> sp.	OR	Clackamas	Regulated	7/10/2012
<i>Rhododendron</i> sp.	OR	Clackamas	Regulated	7/19/2012
<i>Rhododendron</i> sp.	OR	Lincoln	Regulated	4/20/2012
<i>Rhododendron</i> sp.	NY	Suffolk	Non-Regulated	7/31/2012
<i>Rhododendron</i> sp.	WA	King	Regulated	6/27/2012
<i>Rhododendron</i> sp.	IN	St. Joseph	Non-Regulated	9/12/2012
<i>Rhododendron</i> 'Trewithen Orange'	OR	Lincoln	Regulated	5/17/2012

Plant Genus/Species/Variety	State	County	County Status	Date Confirmed
<i>Rhododendron</i> 'Trilby'	CA	Placer	Regulated	8/28/2012
<i>Rhododendron</i> 'Unique'	WA	King	Regulated	6/12/2012
<i>Rhododendron</i> 'Unique'	WA	Skagit	Regulated	6/8/2012
<i>Rhododendron</i> 'War Dance'	CA	Sacramento	Regulated	7/12/2012
Soil (substrate)	OR	Polk	Regulated	6/18/2012
Soil (substrate)	OR	Washington	Regulated	5/17/2012
Soil (substrate)	OR	Washington	Regulated	6/28/2012
Soil (substrate)	WA	Pierce	Regulated	6/25/2012
Soil (substrate)	CA	Sacramento	Regulated	6/27/2012
Soil (substrate)	OR	Tillamook	Regulated	6/6/2012
Soil (substrate)	CA	Orange	Regulated	6/18/2012
Soil (substrate)	ME	Lincoln	Non-Regulated	11/16/2012
Soil (substrate)	ME	Lincoln	Non-Regulated	12/12/2012
<i>Trachelospermum jasminoides</i>	CA	Orange	Regulated	4/13/2012
<i>Viburnum bodnantense</i>	OR	Polk	Regulated	5/14/2012
<i>Viburnum cinnammomifolium</i>	OR	Washington	Regulated	5/17/2012
<i>Viburnum davidii</i>	OR	Tillamook	Regulated	4/27/2012
<i>Viburnum</i> sp.	OR	Washington	Regulated	4/13/2012
<i>Viburnum tinus</i>	OR	Polk	Regulated	4/27/2012
<i>Viburnum tinus</i>	OR	Washington	Regulated	4/13/2012
<i>Viburnum tinus</i>	OR	Marion	Regulated	4/13/2012
<i>Viburnum tinus</i>	WA	Pierce	Regulated	3/30/2012
<i>Viburnum tinus</i> 'Lucidum'	WA	King	Regulated	4/18/2012
<i>Viburnum tinus</i> 'Spring Bouquet'	CA	Sacramento	Regulated	6/6/2012
Water	NY	Suffolk	Non-Regulated	2012
Water	NY	Suffolk	Non-Regulated	2012
Water	WA	Skagit	Regulated	8/3/2012
Water	WA	Thurston	Regulated	5/9/2012
Water	WA	Thurston	Regulated	5/9/2012
Water	WA	Clark	Regulated	5/11/2012
Water	WA	Clark	Regulated	5/24/2012
Water	WA	King	Regulated	6/13/2012

Dated: January 25, 2013, Prakash K. Hebbar *Phytophthora ramorum* National Program Manager, USDA-APHIS-PPQ, APHIS Headquarters, Riverdale, Maryland; Stacy Scott, National Operations Manager, USDA-APHIS-PPQ, Ft. Collins, Colorado.

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